

The Colophon which appears on the front page of the cover represents a flowering plant to which, in 1886, Professor J. Decaisne of the Paris Museum of Natural History gave, in honour of Sir Francis Galton, the name "Galtonia Candicans."

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PERIODICALS

Archiv der Julius Klaus-Stiftung

1947, 22, Nos. 3/4.—*Paraplégie, Dystrophie squelettique et dégénérescence tapéto-rétinienne familiales.*—By Michel Jéquier and E. B. Streiff.—History of a large family, several members of which suffer from juvenile spastic paraplegia of a kind deviating from the well-known endogenous spastic paraplegias. This affection is transmitted as a simple recessive. In several individuals the syndrome is associated with an abnormality of the heads of the femora, which according to X-ray examinations seems to be due to Legg-Calvé-Perthes's disease with spina bifida. This skeletal abnormality, too, is transmitted as a simple recessive and is probably due to an independent gene. In another branch of the same family several children of two brothers who married two sisters suffer from a particular type of retinitis pigmentosa. Here, too, the heredity seems to be recessive, due to another, independent, gene.

Diskordante Missbildungen bei eineiigen Zwillingen.—By Walter Strupler.—Describes ten pairs of uniovular twins, in which one of each pair was a monster.

The Seventh Annual Report of the Swiss Genetic Society (Schweizerische Gesellschaft für Vererbungs-forschung) publishes the text of papers given at the annual meeting of the Society in Geneva on August 29th, 1947: E. Hanhart describes the heredity of some deformities (microtia, peromelia, pollux varus, hydrocephalus, microcephalus) and the origin of so-called amniotic strangulation, and, in another paper the irregular dominance of the Laurence-Moon-Bardet-Biedl syndrome (idiocy with retinal dystrophy, dystrophia adiposogenitalis and poly- or syndactylism) in six members of one family. Hanhart also writes on recent findings on the heredity of diabetes mellitus, with particular reference to "conjugal diabetes," and contributes an article on the large family with acute glottic oedema discovered by F. Schubiger twenty-five years ago. Up to the present the condition has been fatal in five cases, and appears to have some relation to allergy.

U. Pfändler writes on hereditary conditions in breast-feeding; D. Klein on partial albinism (leucism) associated with deaf-mutism, osteomyodysplasia, multiple congenital articular rigidities and other congenital malformations; Cl. Barigozzi on human chromosomes in some pathological conditions; E. B. Streiff on the heredity of heterochromia; and A. Franceschetti, J. E. W. Brocher and D. Klein on unilateral mandibulofacial dysostosis with multiple skeletal deformity (paramastoid process, vertebral synostosis, sacralization, etc.) and clonic torticollis.

The Seventh Annual Report of the S.G.S. also

contains the *Bibliographia Genetica Helvetica* 1945-6.
F. F. TIETZE.

Human Biology

September 1947, Vol. 19, No. 3.—*Family Studies in the Eastern Health District. IV. Permanence of Residence with Respect to Various Family Characteristics.*—By H. M. C. Luykx.—A study of permanence of residence in relation to such factors as colour, number in family, number of wage-earners, and home ownership or not.

Completed Generation Reproduction Rates.—By T. J. Woofor.—An outline of the trend of fertility in the United States since 1860, using completed generation reproduction rates instead of the fertility rates in conventional order—e.g. based on the reproduction rate for a single year. The major conclusion is that rate of decline in fertility "is neither so drastic nor so alarming as some students in the past have feared." Calendar year reproduction rates are considered to be of doubtful value for long-term comparisons, and especially as a basis for estimates of future trends.

December 1947, Vol. 19, No. 4.—*Quantitative Aspects of Organization.*—By C. C. Lienau.—A mathematical study of the "metrical aspects" of social organization.

Penetrance, Estimated by the Frequency of Unilateral Occurrences and by Discordance in Monozygotic Twins.—By G. W. Lasker.—A mathematical study.

Evaluation of Slopes and Intercepts of Straight Lines.—By L. M. Zucker.

Correlation in Growth.—By H. V. Muhsam.—Tables and charts of the growth of children which purport to show norms are in fact averages: "... it has never been proved that the normal child assumes in its development, one after the other, the means of heights and weights observed for a large sample of children." Normal development can be studied by successive measurements of the same individuals during growth. This paper is a mathematical analysis of data of this sort. It is found that growth in height and weight at different times is compensatory: if growth is above the general average at one period, then it is less than the general average in another. The growth of girls above the age of 7 falls in two periods from 7-8 to 11-13, and from 11-13 onwards. Girls who grow much during one year of a period grow much during the whole of that period.
S. A. B.

Human Fertility

September 1947, Vol. 12, No. 3.—*An Extramural Fertility Service.*—By Abraham Stone, M.D., and Frances E. Shields, M.D.—This is a description of

the service for the investigation and treatment of infertility which has been developed since 1945 at the Margaret Sanger Research Bureau in New York. The authors emphasize that the increasing demand from couples in all income groups for such a service is making imperative the establishment of more properly planned and equipped clinics where both husband and wife can be dealt with. Those responsible for the organization of the Planned Parenthood Centres in America consider that their programme should be expanded to include the provision of adequate medical aid to childless couples. This is also the policy of the Family Planning Association in this country. A description of an Infertility Service which has been in existence for some years at one of its clinics, published in this REVIEW in January 1945,* would suggest that the services in the two countries are being developed along very similar lines. Dr. Stone and Dr. Shields insist, as we do, on the importance of providing facilities for the examination of the husband as well as the wife so that the couple can be dealt with as a unit. The wife is first interviewed by the clinic nurse, and is then asked to attend, together with a few other new patients, an "orientation" lecture and discussion at which a doctor explains to them "the anatomical and physiological factors in fertility, the various causes of infertility, the tests required to determine the particular cause in individual cases and the time these tests and treatments may involve." This is an innovation and, provided it were done simply, with tact and understanding, it would seem to be an excellent one. At the same lecture the women are given instructions for recording their daily basal temperatures, and are told that the co-operation of both husband and wife is needed, that many of the tests have to be done at a certain specific time in their menstrual cycle, and may extend over many months. If the couple decide to proceed they then attend at suitable sessions for the various general and special examinations that are necessary (these include seminal analysis, tubal patency tests, endometrial biopsy and post-coital tests, estimation of B.M.R., etc.). The Margaret Sanger infertility service, which is open daily from Monday to Friday, has on its staff two gynaecologists, two urologists, a surgeon, an endocrinologist, a psychiatrist and two nurses, and they meet regularly to discuss cases and co-ordinate findings and results.

A Questionnaire for Use in Infertility Clinics.—By Abner I. Weisman, M.D.—Dr. Weisman

reproduces here the exhaustive questionnaire which is issued to prospective patients at the Jewish Memorial Hospital Infertility Clinic. It is divided into two sections for husband and wife respectively, and includes detailed questions on family history, personal habits, medical history, obstetric and menstrual history of wife, and previous investigation and treatment for sterility, if any. They are asked to fill it in with care and perfect honesty before seeing the physician in charge of the clinic. Dr. Weisman maintains that this system saves almost an hour of the doctor's time; but as its accuracy and therefore its value must depend a great deal on the intelligence of the patient and her husband, considerable errors may be made if the questionnaire is not checked in a personal interview.

December 1947, Vol. 12, No. 4.—*Class Differences in the Employment of Contraceptive Measures.*—

By E. L. Koos, Ph.D.—The author has made many studies of the habits and circumstances of working- and middle-class families in America, and here outlines his findings in two small series, comprising 156 families from each stratum, with special reference to their successful use of contraceptives. He found that the two groups differed quite widely in the following respects: Type of method used, and hence degree of protection afforded; degree of acceptability to husband and wife; sources of information; time of starting use of birth control; and regularity of using method of choice. His figures support the thesis that the working-class families tend to use inexpensive and relatively unreliable methods which husband and/or wife dislike or distrust, starting the use of birth control in desperation and relatively late in marriage, and failing to use it regularly. Whereas the middle-class families tend to use the more reliable methods with regularity when necessary, starting their use early in marriage, to the mutual satisfaction of both husband and wife. The author concludes: "To the student of family life these findings re-emphasized the special vulnerability of the working-class family in the realms of sexual activity. Adequate sexual expression for optimum family living is obviously denied these families since economic need and the untutored use of contraceptives impose handicaps which are little understood and for which the social order makes few provisions. Not only are more widespread educational measures called for, but there appears a need for further clinical research for an inexpensive, readily obtainable and effective method."

MARGARET HADLEY JACKSON.

FROM THE PRESS CUTTINGS

Australia's Population

Mr. Dalton, speaking at Oxford University Labour Club in February, said that in the long run this country would not be able to carry such a large population as at present. There ought to be a substantial movement of population from this island to other places, especially to Australia.¹

British subjects comprised the largest section of the immigrants to the Commonwealth during 1947. Last year they numbered 7,000 out of a total of 11,000; the next largest contingents were Poles, Greeks and Americans.²

Vital Statistics in the Dominions

In 1946 the natural increase in Canada's population was 215,796, the greatest on record, and 40,480 higher than in 1945.³ In New Zealand, during the same period, the European birth-rate was 25.74, with 41,871 births; the Maori birth-rate was 56.49, with 5,776 births. Infantile mortality was 26.10 per thousand for Europeans and 74.62 for Maoris.⁴

Population of Eire

The Registrar-General's returns for 1947 estimate the population of Eire at 2,953,452. The marriage-rate dropped from 5.9 in 1946 to 5.5 in 1947, but the birth-rate, at 23.1, was higher than for any year since 1939. The death-rate was 14.9. There should be a natural rise of population, but when more detailed returns are available they will probably show that this is cancelled by the emigration of native-born young workers of all classes.⁵

Population Commission in Eire

Mr. William Norton, Deputy Prime Minister and Minister for Social Welfare in Eire, is about to establish a commission to investigate the causes and consequences of the present level and trend in population. The commission will examine the social and economic effects of birth, death, migration and marriage rates, and their probable course in the near future; what measures should be taken to influence the future trend in population and the desirability of formulating a national population policy.⁶

Population Growth in America

The population of the United States increased during 1947 by about 2,700,000, nearly half a million more than the previous record established in 1946. The total population at the beginning of 1948 was 145,000,000, showing an increase of 14,000,000 since the 1940 census, nearly one-third of which was among children under five years of age.⁷

Surplus Women

The estimated surplus of females over males at the middle of 1946 was 1,726,000. Analysis by age-groups shows that the excess of women occurs mainly among those of 45 years and over, where men number 7,393,000 and women 9,119,000.⁸

Dean Inge and Population

In a speech to the City Conservatives of the 1912 Club on March 16th, the Very Reverend Dean Inge said that this island was grossly over-populated. We depended for our existence on foreign trade. At the beginning of the Napoleonic wars our population had been 10 million, now it was 45 million. In the past we had had a big start in trade, but we had used our facilities for cheap and good labour and our increasing population to export our capital to enable other countries to do without us. Costs of production were now at fantastic and entirely uneconomic levels.

"The birth-rate will have to go up," said the Dean, "and a lot of people will emigrate, but we shall have to bear in mind that those people who do emigrate may not be the people we want to lose. In the end economic law must have the last word. We may have to go back to a much smaller population, living mostly on the land. It will be safer when this is done, but the process may be painful." He added that there must be plain living, hard thinking, hard work and trust in God.⁹

Catholics in England and Wales

The *Catholic Directory* of 1948 estimates the Roman Catholic population of England and Wales to have been 2,528,000 in 1946. Children's baptisms numbered 85,024 and marriages 35,566. Dr. W. A. Zbyszewski, discussing these figures in the *Tablet*¹⁰ and comparing them with those in the *Annual Abstract of Statistics*, No. 84, concludes that Catholics constitute between 9 and 10 per cent of the total population of England and Wales, and number approximately four million. By relating the number of baptisms given in the *Catholic Directory* with the number of births shown in the *Abstract* for the years 1943 to 1946 inclusive, the following percentages for Catholic births are obtained: 10.2, 9.6, 10.7 and 10.3, the highest, 10.7, being for the year 1945, when the general birth-rate at 15.9 per thousand was the lowest for the four years under consideration. This provides a strong argument for the view that the Catholic birth-rate is steadier than that of the community as a whole—when the general birth-rate falls, the Catholic birth-rate falls less; when it rises, the Catholic rises less.

Rise in French Birth-Rate

In 1947 the number of births exceeded deaths by 328,000, compared with 294,350 in 1946. France

has thus, for two years running, had a bigger excess of births over deaths than at any time in her recorded history : not since the period 1821-5 has there been an average natural increase of population of over 200,000. The birth-rate has risen from 14.7 per thousand in 1938 to 21 per thousand, while the death-rate has fallen from 15.2 to 13 per thousand.¹¹

Mental Health

Professor D. K. Henderson, Physician Superintendent, in his report on the work of the Royal Edinburgh Hospital, stresses the need to concentrate efforts in relation to the birth of healthy children and their maintenance at a healthy level. "We need not be quite so gloomy as many of the statisticians would have us believe," he writes, "but when men such as Sir Cyril Burt, Godfrey Thomson and others inform us that the general average intelligence level of the population is tending to deteriorate, and when they tell us that if matters continue as at present, we will by the end of the century have just half the number of persons of scholarship standard and double the number of mental defectives, then we must indeed take serious stock of the situation."¹²

The Trend of National Intelligence

J. Bronowski, speaking in the B.B.C.'s Third Programme, said : "Human societies live by intelligence ; and for some years now, those concerned with testing intelligence in children have been troubled by what they are finding. Their results and their uneasiness are summarized in a lecture which Professor Godfrey Thomson delivered two years ago to the *Eugenics Society*. . . . The lecture and discussion have now been printed as a pamphlet under the title *The Trend of National Intelligence*. I am by no means convinced of all the conclusions drawn here, but I am quite convinced that the topic is of the first importance, and that the pamphlet is the best scientific two-shillings-worth of the year, for laymen and scientists.

What Professor Thomson and others have proved is that, over the population as a whole, the marks scored in intelligence tests by children of large families are lower than those scored by children of small families, on the average. . . .

Why should the children of large families on the average be duller? In the main, probably, for social reasons. In the first place, it is known that, again on the average, the brighter fathers marry the brighter mothers, and have the brighter children. And for a long time now, bright and ambitious people have married later, and have been reluctant to beget large families—and not infrequently seem incapable of doing so, for reasons which appear to be physical and inherited. This last fact, indeed, alarmed Galton himself, long before the intentional limitation of the family became either simple or fashionable. All this has led Professor Thomson and others to a further conclusion : that the average intelligence of the

whole population is falling perceptibly from generation to generation. I myself do not think this conclusion nearly so well founded as the rest of the work. To take only one objection : at the present time any such fall must be offset at least in part by the shrinking of the family which Professor Thomson rather oddly leaves out of his otherwise neat calculations. But the point is that these conclusions are now being tested on a large scale on a new generation of schoolchildren, and that is the kind of work for which we should all press. For intelligence is a precious commodity. As Professor Thomson points out, it does not consist in a special skill in this subject or at that trade. The child with a high intelligence score will on the average be good at most things. He is the reservoir for craft skills and skills of the mind, for art as well as for science. We cannot afford to waste him, either born or unborn."¹³

Artificial Insemination and Legitimacy

Although the question has not yet come before any court, weighty opinion in this country has declared that a child born as a result of A.I.D. is illegitimate. Mr. Justice Greenberg, of the Supreme Court of New York State, has pronounced in the opposite sense. He held that the child has been adopted or semi-adopted by the husband, and was not illegitimate. Logically and realistically the situation was not different from that of a child born out of wedlock and made legitimate by the marriage of the interested parties. He declined to discuss either property rights or the propriety of artificial insemination. The case in question arose from the wish of the mother to prevent her divorced husband from visiting the child ; the judge's attention was primarily devoted to the interests of the child—he remarked during the hearing that the court would not lend itself to making any child illegitimate—but if he had been trying a case involving, for instance, succession to property, other considerations might have affected his conclusion. But his view is bound to carry weight in future discussion of this difficult problem.¹⁴

Old Age

The British Institute of Public Opinion recently conducted a Gallup Poll on the question, "What age do you want to reach before you die?" The replies were : below 70, 9 per cent ; 70 to 80, 46 per cent ; 85 to a 100, 19 per cent ; miscellaneous, 12 per cent, and don't know, 14 per cent. Among the miscellaneous were 3 per cent who would like to live as long as possible, provided they retained good health.¹⁵

¹ *The Times*, Feb. 28th ; ² *Evening Standard*, Feb. 16th ; ³ *Canada's Weekly*, March 5th ; ⁴ *Medical Officer*, April 10th ; ⁵ *Cork Examiner*, April 16th ; ⁶ *Belfast Newsletter*, March 24th ; ⁷ *The Times*, March 24th ; ⁸ *Leader*, March 20th ; ⁹ *The City Press*, March 19th ; ¹⁰ March 4th ; ¹¹ *Manchester Guardian*, March 11th ; ¹² *Scotsman*, Feb. 23rd ; ¹³ *Listener*, March 4th ; ¹⁴ *British Medical Journal*, Feb. 28th ; ¹⁵ *News Chronicle*, March 24th.